

## AMENDMENTS TO THE SPECIFICATION

### **Please amend paragraph 16 as follows:**

(16) Thus, despite the differences in various models, it is often desirable to combine the multiple models into a consolidated model having a unified set of rules (also referred to as “stitched rules”). Referring to Figure 5, the conventional consolidation system 500 includes a model 502 that represents a set of three models that may be created and maintained separately. Model 504 is, for example, a configuration model that describes how a particular product may be built and sold for the USA market. Model 506 is a configuration model that describes how the same product may be built and sold for the Canadian market. Model 508 is a configuration model that describes how the same product may be built and sold for the Mexican market. Models 504, 506, and 508 may be combined into a single model 512 by conventional consolidation (also referred to as “stitching”) processes 510. The consolidated model 512 will contain stitched rules that represent all the information present in the original three models. However, in many circumstances the conventional ~~consolidations~~ consolidation processes 510 produce unspecified configuration buildables in consolidated model 512. “Unspecified configuration buildables” are configuration buildables included in consolidated model 512 that are not defined in any of the source models, i.e. models 504, 506, and 508. An unspecified configuration buildable is, thus, an error that can have significant adverse consequences. Conventional consolidation processes do not automatically detect unspecified configuration buildables and correct them. Since models can contain thousands, hundreds of thousands, or more rules, a high degree of automation is often a key to success for modeling and model data driven technologies.

### **Please amend paragraph 32 as follows:**

(32) A model consolidation process combines multiple configuration models into a single unified configuration model that contains the union of the allowable combinations (i.e. combinations that are buildable) from each of the original models. An aspect of at least one embodiment of the model consolidation process is that it allows models to be combined in such a way that any incompatibilities or contradictions between models are

detected and automatically resolved where possible. If an incompatibility is detected that cannot be automatically resolved, then the configuration models should not be combined. Instead if this incompatibility case occurs, at least one embodiment of the model consolidation process produces a description of the problem encountered and ~~report~~ reports the problem along with the necessary information required for a human to resolve it.

**Please amend paragraph 53 as follows:**

(53) Referring to Figure 7, the model consolidation system 700 includes model 702, which represents a set of N models that may be created and maintained separately, where N is any integer. Model A 704 is, for example, a configuration model that describes how a particular product may be built and sold for the USA market. Model B 706 is a configuration model that, for example, describes how the same product may be built and sold for the Canadian market. Model N 708 is, for example, a configuration model that describes how the same product may be built and sold for the Mexican market. Models 704, 706, and 708 may be combined into a single model 712 by the model consolidation (also referred to as “stitching”) ~~processes~~ process 710. The combined model 712 contains stitched rules that represent all the information present in the original three models without unspecified buildable configurations.

**Please amend paragraph 54 as follows:**

(54) Figures 8 and 9 ~~depicts~~ depict the model representations used for Figures 6 and 7 and the resulting consolidation of the model representations using an embodiment of model consolidation system 700. For clarity, Figures 8 and 9 ignore the effects of the optionalities ('S', 'O', ...) of the rules.

**Please amend paragraph 75 as follows:**

(75) Non-trivial families ~~are the families~~ that cannot be trivially combined are the families of the defining constraints as well as their ancestors. Trivial families can be combined using a stitching process such as the conventional stitching process 510. The DAG created in Step 2 is utilized to determine the ancestors of each of the defining

~~families~~ families of the defining constraints. Each set of ancestor families is then combined together along with the set of ~~defining families~~ families of the defining constraints. This results in the set of families that cannot be trivially combined.

**Please amend paragraph 83 as follows:**

(83) For each rule the features of the RHS that belong to defining families are investigated. The ancestors of each RHS feature ~~[[is]]~~ are computed, and if the family of the LHS feature of the rule is in the ancestor list, then that RHS feature is causing a cyclical relationship in the DAG and is removed from the RHS of the rule. Otherwise, the DAG is updated to include the relationship just encountered. Once this process is completed it is guaranteed that there are no cyclical relationships among the rules.

**Please amend paragraph 89 as follows:**

(89) This step and its associated sub-steps are only run on the rules with LHS features from a non-trivial family. This step updates the rules in such a way that any erroneous allowed feature combinations created by the combination process 1000 are removed. Figure 11 shows a flowchart of process 1100, which depicts a flowchart for removing unspecified buildable configurations from a consolidated model.[.]

**Please amend paragraph 114 as follows:**

(114) In this example there is only one constraint family, SER. Thus, it and its ancestors are the set of families that cannot be trivially combined together. This results in {MKT, ENG, SER} as the set of non-trivial families.

**Please amend paragraph 149 as follows:**

(149) I/O device(s) 1319 may provide connections to peripheral devices, such as a printer, and may also provide a direct connection to a remote server computer ~~systems~~ system(s) via a telephone link or to the Internet via an ISP. I/O device(s) 1319 may also include a network interface device to provide a direct connection to a remote server computer ~~systems~~ system(s) via a direct network link to the Internet via a POP (point of presence). Such connection may be made using, for example, wireless techniques,

including digital cellular telephone connection, Cellular Digital Packet Data (CDPD) connection, digital satellite data connection or the like. Examples of I/O devices include modems, sound and video devices, and specialized communication devices such as the aforementioned network interface.